Full Length Research Paper

Mastery and performance approach goal orientations in relation to academic self-efficacy beliefs and academic help seeking behaviors of college students in Turkey

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This study explored the associations among achievement approach goal orientations, academic self-efficacy beliefs, and academic help seeking behaviors of Turkish college students. A self-report survey was administered to 98 junior college students in a teacher training department of a major research and teaching university in Istanbul. Structural equation modeling was used for data analysis. The findings showed that mastery approach goal orientation was significantly positively associated with college students' perceived academic self-efficacy beliefs and academic help seeking behaviors. Performance approach goal orientation, on the other hand, was not significantly related to academic self-efficacy beliefs but significantly negatively associated with students' academic help seeking behaviors. Overall, the structural model explained 31% of the variance in academic self-efficacy beliefs and 39% of the variance in academic help seeking behaviors of college students. The practical implications and future directions along with the limitations of the study are discussed.

Keywords: Achievement approach goal orientations; Academic self-efficacy; Academic help seeking; College students; Teacher training.

INTRODUCTION

Students in learning environments adopt different goals. According to Fryer and Elliot (2008), goal refers to "what a person plans to do in a particular achievement situation" (p. 54). Goal orientations determine the way students approach, engage in, and respond to learning activities (Ames, 1992). Research shows that adopted goals influence students' motivation, emotion, strategy utilization, learning, academic behaviors, and achievement (Ames and Archer, 1988; Elliot and McGregor, 2001; Grant and Dweck, 2003; Linenbrink and Pintrich, 2002; Meece et al., 1988; Midgley and Edelin, 1998; Nolen, 1996; Phan, 2010; Wolters et al., 1996). Until recently, most studies on achievement goal orientations have been conducted in schools in the United States. Therefore, our knowledge on goal orientations is primarily constructed based on the findings of the researchers in the U.S.A. Although recently, a growing number of studies have begun to explore achievement goal orientations in countries outside the United States (Butler and Shibaz, 2008; Cano and Berbén, 2009; Grez et al., 2009; Régner et al., 2009), related studies in developing countries are still limited (Alkharusi, 2008; Fan et al., 2008, Liem et al., 2008). The

purpose of the current study is to expand research in this field by investigating achievement goal orientations in association with other related motivational and behavioral variables in a college setting in Turkey.

Two major goal orientations in academic environments involve mastery and performance goals. Research shows that mastery oriented students focus more on learning, development, improvement, and understanding; they use more effective learning strategies and prefer more challenging tasks whereas performance oriented students focus more on doing better than others, demonstrating behaviors that would lead to public recognition, praise, and higher confidence; they use less effective learning strategies and prefer easy tasks (Ames and Archer, 1988; Midgley and Edelin, 1998; Ryan et al., 2001). In a recent research, mastery goal orientation has been reported to yield higher academic success for students in law schools in which performance goal orientation is highly encouraged (Christensen, 2009). Another current research showed that in performance goal oriented classrooms, students adopt the highest levels of surface learning but moderate levels of deep learning approaches (Cano and Berbén, 2009). Adopted

goal orientations also affect students' academic emotions. Based on related research, Linenbrink and Pintrich (2002) suggested that mastery-oriented students experience more positive emotions, such as enjoyment, happiness, and pleasure whereas performance-oriented students experience stronger negative emotions like anxiety, sadness, and anger during task engagement.

Recently, mastery and performance goal orientations have been bifurcated as approach and avoidance goals (Elliot and Harackiewicz, 1996; Elliot and Church, 1997; Elliot and McGregor, 2001; Midgley et al., 1998; Pintrich, 2000). According to Elliot and McGregor (2001), individuals who adopt approach goals aim at approaching success and desired outcomes whereas those who adopt avoidance goals aim at avoiding failure. For example, students adopting mastery approach goals aim at understanding the subject content and improving the acquisition of new skills while students adopting mastery avoidance goals try to avoid failing to comprehend the content or material and acquisition of new skills. Students adopting performance approach goals may aim at doing better than others or wish to be perceived as more able than others while students adopting performance avoidance goals may aim at avoiding being seen as less able than others. Avoidance goals in general are accompanied by anxiety, distress, and worry toward a new challenge. In the current study, achievement approach goal orientations as more related to learning gains were examined in association with academic self-efficacy beliefs and academic help seeking behaviors of college students.

Research shows that academic self-efficacy is significantly associated with students' learning, cognitive engagement, analytical thinking, academic commitment, strategy use, persistence, susceptibility to negative emotions, and achievement (Bandura et al., 1996; Linenbrink and Pintrich, 2003; Multon et al., 1991; Pintrich and De Groot, 1990; Zimmerman et al., 1992). Bandura (1997) defined self-efficacy as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). The prior research has provided consistent positive results regarding to the relationship between mastery approach goal orientations and self-efficacy beliefs of students at different developmental levels (Anderman and Young, 1994; Middleton and Midgley, 1997; Middleton and Midgley, 2002; Linenbrink, 2005; Pajares et al., 2000; Roeser et al., 1996). Unlike mastery approach goals, however, studies reported inconsistent results in terms of the relationship between performance approach goals and academic self-efficacy beliefs of students. Several research showed a positive correlation (Elliot and Church, 1997; Fan et al., 2008; Walker and Green, 2009; Wolters et al., 1996); some reported a nonsignificant link (Linenbrink, 2005; Middleton and Midgley, 1997; Middleton and Midgley, 2002); and some found a negative relationship between these variables

(Anderman and Young, 1994). Pajares and his colleagues (2000) reported a positive correlation between these variables for seventh-grade students but a nonsignificant relationship for sixth-grade students. These researchers suggested that the relationship between performance approach goals and self-efficacy beliefs of students may differ based on age. The link between achievement goals and self-efficacy was studied further in middle school environments adding academic help seeking into equation (Ryan et al., 1998).

Academic help seeking, called adaptive help seeking by Newman (2002; 2008), is a crucial motivational behavior demonstrated by students with the purpose of overcoming difficulties in comprehending academic materials. Newman (2000) defined adaptive help seeking as "a particular subset of speech, acts that individuals use for the purpose of seeking information, i.e., for correcting a knowledge deficit that interferes with academic task completion" (p. 352). Until recently, help seeking was perceived as overdependence, immaturity or incompetence of learners but the recent studies showed that help seeking behavior pursued under necessary conditions was a learning strategy used by competent self-regulated learners (for a review, see Newman, 2000). Self-regulated learners know when, where, and how to look for assistance (Newman, 2008) and benefit from teachers, peers and/or related sources. Ryan et al. (1998) reported that middle school students with low self-efficacy were more likely to avoid seeking help; and, unlike performance goal oriented classrooms, in mastery goal oriented classrooms students were less likely to avoid asking for help when they needed it. Similar outcomes were also reported by Middleton and Midgley (2002), favoring mastery approach goal orientation for preventing avoidance for seeking help in elementary schools. In consistent with these findings, Linenbrink (2005) also reported a positive correlation between mastery approach goal orientation and help seeking behaviors of upper elementary students.

Although achievement goal orientations and self-efficacy beliefs have been studied quite often especially in middle school environments in the United States, related studies involving college environments especially in developing countries have been limited. Midgley and her colleagues (2001) emphasized the need for culturally diverse studies to be able to comprehend the causes of inconsistencies regarding to the role that performance approach goal orientations play on students' academic behavior and motivation. In an interview, Dale H. Schunk, underlined the need for more studies on academic self-efficacy in countries outside the United States, including Turkey, so that its impact on students' learning, motivation, and self-regulation can be evaluated more comprehensively and comparatively (Sakiz, 2008). Besides, because not much is known about academic help seeking behaviors of college students, examining the

potential determinants of help seeking behaviors in college environments is fundamental. Such investigations are especially crucial in teacher training departments due to our knowledge that beliefs and attitudes are transmitted from teachers to students, especially at young ages. For instance, Newman and Schwager (1993) reported that teachers' goal orientations, perceptions of competition, reward systems, expectations, and support types affect classroom climate and influence students' motivation, task engagement, academic outcomes, attributions, and beliefs. Therefore, awareness of pre-service teachers' beliefs and academic behaviors would help us work on replacing any undesirable belief systems and attitudes with desirables ones so that more constructive mind sets can develop at their future students. In the current study, the associations among achievement approach goal orientations, self-efficacy beliefs, and academic help seeking behaviors of college students in a teacher training department in Turkey were investigated.

The primary question explored was "what are the relationships among achievement approach goal orientations, academic self-efficacy beliefs, and academic help seeking behaviors of Turkish junior college students?" Based on the given research, it was hypothesized that mastery approach goal orientation would be significantly positively related to college students' academic self-efficacy and academic help seeking behaviors; performance approach goal orientation would be significantly negatively associated with students' academic self-efficacy and academic help seeking behaviors; and academic self-efficacy would be significantly positively related to students' academic help seeking behaviors.

MATERIALS AND METHODS

Participants

Ninety-eight junior college students (third year students) in the elementary education department of a major teaching and research university in Istanbul, Turkey, participated in the study. The average age of the students in the study was 21.49 (SD = 1.14). A greater number of female students (n = 56, 57%) than male students (n = 42, 43%) participated.

Measures

Achievement approach goal orientations: Three items in mastery approach goal orientation subscale and two items in performance approach goal orientation subscale were taken from the Achievement Goal Orientations Questionnaire (Elliot and McGregor, 2001). Items were responded on a 5-point Likert type scale from 1 (not at all

true of me) to 5 (very true of me). The reliability estimates for the mastery approach goal orientation (α = .826) and the performance approach goal orientation in the current study (α = .759) were satisfactory. A sample item in mastery approach goal orientation was "it is important for me to understand the content of this course as thoroughly as possible" and in performance approach goal orientation was "it is important for me to do better than other students."

Academic self-efficacy: Five items measuring academic self-efficacy were taken from *The Motivated Strategies for Learning Questionnaire* (Pintrich et al., 1991). Items were measured with a 5-point Likert type scale ranging from 1 (not at all true of me) to 5 (very true of me). The reliability estimate for the academic self-efficacy was adequate (α = .866). A sample item in this scale was "I am certain that I can understand the basic concepts taught in this class."

Academic help seeking: The four items measuring academic help seeking behaviors were taken from *The Motivated Strategies for Learning Questionnaire* (Pintrich et al., 1991). Items on this scale were measured with a 5-point Likert type scale anchored by 1 (not at all true of me) and 5 (very true of me). One item was reverse coded. The internal consistency reliability estimate of academic help seeking was a bit low (α = .621) similar to the pilot results. Therefore, caution is necessary while interpreting the findings related to this measure. A sample item in this scale was "I ask the instructor to clarify the concepts I don't understand well."

Because the instructional language in the department in which the survey was administered was Turkish, all items were translated from English to Turkish. Two experts, fluent in both languages, examined the survey, assessed the accuracy and applicability of each item, and provided feedback. Based on their suggestions, necessary adjustments were applied. A pilot study was conducted involving 185 junior college students enrolled in the science and technology teaching course in the department of elementary education. This study did not include academic help seeking scale. Therefore, a second pilot study was conducted with the participation of 37 freshman college students enrolled in the educational psychology course in the same department. Based on the pilot data, the item-total correlation analyses and the principal factor analyses were performed (The factor analyses supported the results of the item analyses. Item-total correlation analyses provided satisfactory results in terms of internal consistency reliability estimates of mastery approach goal orientation (α = .86), performance approach goal orientation (α = .842), and academic self-efficacy beliefs (α = .843). The reliability estimate of academic help seeking was lower than desired (α = .615) but the internal consistency reliability estimate of this scale at the original scale (Pintrich et al., 1993) was also low (α = .52). In a recent study, this subscale again provided an internal consistency below

.60 (Burlison et al., 2009)). A few minor changes were applied and continued with the current study.

Procedure

The survey was administered toward the end of the spring academic term in 2009. Students responded to the survey items in relation to their Turkish language teaching course. The course was determined based on students' responses to the question regarding to the most challenging course they had had over the semester. Majority of the students in three classrooms responded to this question as Turkish language teaching course. Following this information, students were asked to respond to the survey items with respect to this course. The Turkish language teaching course was a compulsory course for junior college students in the department of elementary education. The instructor of the course was same for all three classrooms. The first half of the semester, students were instructed by the professor, and, the second half of the semester, students were expected to present their projects that they had prepared in groups for several weeks and hand in a final report. Achievement in the course was based on students' performances in mid-term and final exams as well as their performances in group projects.

Design/Statistics

The proposed model was tested using structural equation modeling (SEM). The latent constructs in the hypothesized structural model were represented by their items as measured indicators and were allowed to intercorrelate during the examination of the measurement model. A priori alpha level was set at .05 for all estimations.

RESULTS

Descriptive Statistics

Given the current data, the distributions of mastery and performance approach goal orientations, academic self-efficacy, and academic help seeking measures were mainly normal but in a few cases regarding skewness was close to mild nonnormal. The descriptive analysis of each item was presented below in Table 1.

The Measurement Model

The full measurement model provided an adequate fit to the data [χ^2 (71, N = 98) = 114.627, p = .001, CFI = .980, TLI = .987, RMSEA = .080 (with 90% CI lower bound =

.051 and upper bound = .106)]. Based on the maximum likelihood estimation of factor correlations, mastery approach goal orientation was significantly positively related to academic self efficacy (r = .553, p < .001) and academic help seeking (r=.551, p < .01). The relationship between mastery approach goal orientation and performance approach goal orientation was not significant (r=.168, p>.05). Similarly, performance approach goal orientation was not significantly associated with either academic self-efficacy or academic help seeking (r=.070, p>.05 and r=-.173, p > .05, respectively). Academic self-efficacy, on the other hand, was significantly positively related to academic help seeking (r = .322, p < .05).

The Structural Model

The hypothesized model provided an adequate fit to the given data [χ^2 (72, N =98) = 116.730, p = .001, CFI = .980, TLI = .986, RMSEA = .080 (with 90% CI lower bound = .052 and upper bound = .106)]. As shown in Figure 1, mastery approach goal orientation was significantly positively associated with college students' perceived academic self-efficacy [β = .554, p < .001] and perceived academic help seeking behaviors [β = .566, p < .01]. Performance approach goal orientation, on the other hand, was not significantly related to academic self-efficacy [β = -.008, p > .05] but significantly negatively associated with academic help seeking [β = -.239, p < .05]. Overall, the structural model explained 31% of the variance in academic self-efficacy beliefs and 39% of the variance in academic help seeking behaviors of Turkish junior college students.

No indirect effect analyses were conducted due to nonsignificant correlation between academic self-efficacy and academic help seeking in the structural model.

DISCUSSION

This present study contributed to our understanding of how perceived achievement approach goal orientations may relate to Turkish college students' academic self-efficacy beliefs and academic help seeking behaviors. Results showed that mastery approach goal orientation was significantly positively associated with students' academic self-efficacy beliefs and help seeking behaviors. Performance approach goal orientation was significantly negatively related to students' academic help seeking behaviors but not associated with their academic self-efficacy beliefs. Academic self-efficacy was not significantly associated with academic help-seeking behaviors of students. Consistent with the previous research, mastery approach goal orientation resulted in better motivational outcomes for students (Linenbrink, 2005; Middleton and Midgley, 1997; Pajares et al., 2000;

Table 1. Descriptive Statistics Regarding to the Measured Indicators in the Model

	MS1	MS2	MS3	PR1	PR2	SE1	SE2	SE3	SE4	SE5	HS1	HS2	HS3	HS4
M	3.99	3.84	3.54	2.60	2.17	3.26	3.20	3.49	2.50	2.31	3.01	4.17	3.97	3.53
SD	1.11	1.30	1.34	1.31	1.18	1.25	1.35	1.19	1.19	1.15	1.36	1.10	1.26	1.34
Sk	-.82	-.86	-.56	.16	.63	-.21	-.13	-.30	.08	.45	-.02	-1.43	-1.09	-.53
Kr	-.16	-.37	-.83	-1.20	-.56	-.88	-1.14	-.71	-1.11	-.65	-1.13	1.52	.11	-.86

Note: *M* = Mean, SD = Standard Deviation, Sk: Skewness Kr: Kurtosis MS: Mastery Approach Goal Orientation; PR: Performance Approach Goal Orientation; SE: Academic Self-Efficacy; HS: Academic Help seeking.
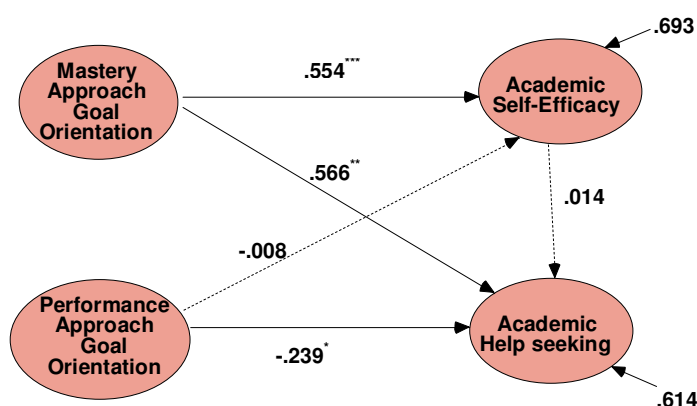

Figure 1. Standardized path coefficients and residual variances in the reduced model. Dashed lines indicate nonsignificant paths. For the clarity of the graphical representation observed variables are not drawn. Note.* $p < .05$. ** $p < .01$. *** $p < .001$.

Roeser et al. 1996; Ryan et al., 1998; Ryan et al., 2001). In fact, the strongest links in the structural model developed in relation to mastery approach goal orientation and its positive associations with academic self-efficacy beliefs and academic help-seeking behaviors of students.

Performance approach goal orientation was not significantly related to academic self-efficacy beliefs of Turkish college students. Although this result was not congruent with the expectation of finding a negative link between these variables like in the study of Anderman and Young (1994), it was consistent with the findings of several studies (Middleton and Midgley, 1997; Middleton and Midgley, 2002; Pajares et al., 2000). The absence of a relationship between performance approach goal orientation and self-efficacy beliefs may rebut the assumption that the positive relationship between these variables might emerge at older ages with development (Pajares et al., 2000). More comprehensive under-standing of this finding may require obtaining information on students' general self-efficacy or prior self-efficacy, task value, and achievement outcomes in similar courses because experiences, values, and constructed beliefs may help explaining the cause (Liem et al.; Fan et al. 2008).

Contrary to expectancies evolved based on prior research (Linenbrink, 2005; Middleton and Midgley, 2002; Ryan et al., 1998), Turkish college students' academic self-efficacy beliefs were not significantly associated with their academic help seeking behaviors. This statistically nonsignificant correlation is possibly related to the powerful direct links developed between mastery approach goal orientation and academic help seeking as well as between mastery approach goal orientation and academic self-efficacy. These powerful links may have obscured the potential positive direct link between academic self-efficacy and academic help-seeking. The likelihood of this instance in the current study becomes stronger considering that in the measurement model academic self-efficacy was significantly positively related

to academic help seeking behaviors of Turkish college students.

In his research, Pintrich (2000) reported that multiple goal orientations may provide mastery, success, good performance, and less anxiety but with the condition of having high mastery goal orientation in the adopted multiple goals. Consistent with prior research, in the current study, the factor correlations did not provide evidence for a potential relationship between mastery and performance approach goal orientations (Elliot and Harackiewicz, 1996; Liem et al., 2008; Middleton and Midgley, 1997; Phan, 2010). Besides, the negative link found between performance approach goal orientation and academic help seeking suggests that performance approach goals may not be good for students and may create academic pressure resulting in avoiding asking for help. Such competitive learning environments may also cause avoiding challenging academic situations. Supporting these assumptions, based on her examination of multiple goals, Linenbrink (2005) reported that performance approach goal orientations are detrimental for students' academic achievement, cause anxiety, and are not associated with motivational outcomes such as self-regulation, interest, self-efficacy, and academic help-seeking. Mastery approach goal orientations, however, positively correlate with almost all motivational variables and achievement (Linenbrink, 2005). Therefore, it is more beneficial for students to strive for orienting themselves toward adopting mastery approach goals only, instead of adopting multiple goals. On the other hand, concentrating continuously on mastery approach goals cannot be possible due to the role of environmental factors (Fryer and Elliot, 2008). For example, a personal effort for adopting mastery approach goals might decline due to the structure of an academic environment encouraging outperforming others.

Considering all these factors, nurturing mastery approach goal orientations in teacher training departments emerges as a significant theme to highlight. For teachers to create educational environments supporting mastery approach goal orientation, such as encouraging academic interest in classroom materials and improvement in one's performance in compared to his/her own previous performance and being flexible about failures and mistakes (Fryer and Elliot, 2008), can provide much better academic, social, and psychological benefits for students. Research reports reveal that perceived teacher goal orientations significantly relate to students' adopted goal orientations (Midgley and Edelin, 1998; Roeser et al., 1996). In other words, the more mastery oriented the teacher, the greater possibility that their students will become mastery oriented and vice versa. Midgley and Edelin (1998) described this process of transmission as following:

If students are in a class where the "best" papers are posted, grading is on a curve, high achievers receive special privileges, and the teacher reminds students

frequently of the importance of high grades and mistake-free papers, it makes sense that they would be oriented toward demonstrating their ability (or hiding their lack of ability). On the other hand, if students are in a class where understanding is emphasized, mastery is the criterion, and effort and improvement are recognized, it makes sense that they would be oriented to developing their ability. (p. 199)

In terms of self-efficacy beliefs, Lorsbach and Jinks (1999) reported that unlike most personal beliefs with highly internalized conceptual structures, self-efficacy can be accessible from and affected by learning contexts. Therefore, providing mastery oriented feedback instead of normative evaluation may increase students' optimism about their competence and improve their self-efficacy beliefs (Stipek and Daniels, 1988). Moreover, teachers' adaptive goal orientations may prevent students' destructive personal self-beliefs such as entity view. Research shows that students' personal beliefs shift from incremental view (believing that one can improve his/her ability through extra effort) to entity view (believing that one cannot improve his/her ability through effort because the intelligence and the ability are fixed elements) over time during development (Dweck and Elliot, 1983, as cited in Paris and Newman, 1990). Teachers may play a crucial role on preventing the emergence of entity view (Tollefson, 2000). Therefore, instructors in teacher training departments need to put more emphasis on mastery goal orientation by encouraging challenge, effort, participation, understanding, interaction, and peer collaboration. Through such practice, preservice teachers benefit from, learn to value, and, consequently, internalize mastery approach goal orientation.

There were several limitations of the current study. First, the current research cannot be generalized to all Turkish college students in teacher training departments. Second, the potential tendency to respond to the survey items in a socially acceptable manner, especially in terms of achievement approach goals, might have introduced bias into the results because students are aware that focusing on mastery rather than outperforming others is a more acceptable achievement related approach in academic environments. Third, because the method used for analyses has a correlational nature, no causal conclusions can be drawn from the current study. Fourth, the relatively low internal consistency of Academic Help seeking scale (.621) might have affected the findings. Because no other scale measuring this construct was identified in the literature, this existing scale was adopted. In future studies, potential ways to improve this scale need to be sought.

Future research may also examine the potential direction of effect between goal orientations and academic self-efficacy beliefs. Although, the potential bidirectional links among given variables are apparent, the starting point is always a question of interest. In the current study, based on achievement goal theory, it was

hypothesized that goal orientations would predict students' self-efficacy beliefs. For instance, adopting greater intrapersonal standards was expected to relate to greater academic self-efficacy beliefs. Given the prior empirical research, however, two different approaches to the direction of effect can be noticed: one that placing goal orientations as predicting self-efficacy (Christensen, 2009; Fan et al., 2008, Middleton and Midgley, 1997; Pajares et al., 2000; Roeser et al., 1996) and the other that placing self-efficacy as predicting goal orientations (Alkharusi, 2008; Liem et al. 2008; Walker and Green, 2009). Considering that mastery approach goal orientation significantly positively relates to academic success (Phan, 2010), and, academic success can be a predictor of one's perceived self-efficacy; then, self-efficacy can easily become a predictor of one's goal orientations. Longitudinal data collected across different time points (see Jagacinski, et al., 2010) may provide a more comprehensive look into this complex issue and reveal the nature of potential bidirectional links among the variables under question in the present study.

Future research may also inspect the role of teachers' adopted goal orientations and, further, the combined effect of teachers' goal orientations and affective support on college students' motivational behaviors. Literature suggests that positive teacher-student relationships, such as caring and affectionate teacher behaviors, listening, asking questions, and being concerned about students' needs could increase students' tendency to seek academic help when needed, especially in elementary and middle school classrooms (Newman, 2002; Newman, 2008; Newman and Schwager, 1993; Ryan et al., 1998). In association with these suggestions, Sakiz (2007) reported a positive relationship between perceived teacher affective support and academic self-efficacy beliefs of middle school students. Such explorations need to be extended to higher education institutions; and the potential combined effects of teacher goal orientations and affective support on college students' adopted goal orientations, academic self-efficacy, and help seeking behaviors in various disciplines should be investigated. Besides, conducting cross-cultural studies in relation to achievement goal orientations, motivational beliefs, and behaviors of college students would be highly favorable for the field.

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